



# Aviation Investigation Final Report

<b>Location:</b>	CARLSBAD, California	<b>Accident Number:</b>	LAX01LA053
<b>Date &amp; Time:</b>	December 4, 2000, 13:30 Local	<b>Registration:</b>	N1097N
<b>Aircraft:</b>	Hughes 269C	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The purpose of the flight was for the certified flight instructor (CFI) to evaluate the skill level of the second pilot, and to provide any needed instruction. The CFI assigned the second pilot the task of performing an autorotation to a landing. During the approach the second pilot, who was handling the flight controls, was a little short of the desired touchdown mark and permitted the main rotor rpm to decrease. During the hard touchdown a rotor blade chopped off the tail boom.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The CFI's inadequate supervision and failure to maintain control of the helicopter during a practice autorotation. A contributing factor was the student's improper in-flight planning/decision.

## Findings

Occurrence #1: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. MISC ROTORCRAFT, TAIL BOOM - CUT/SEVERED
2. AUTOROTATION - INTENTIONAL - DUAL STUDENT
3. (F) IN-FLIGHT PLANNING/DECISION - IMPROPER - DUAL STUDENT

4. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND(CFI)
5. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)

## Factual Information

On December 4, 2000, about 1330 hours Pacific standard time, a Hughes 269C, N1097N, operated by Civic Helicopters, Inc., Carlsbad, California, landed hard at the McClellan-Palomar Airport, in Carlsbad. The tail boom was severed, and the helicopter was substantially damaged. Neither the airline transport certificated pilot, who held a flight instructor certificate, nor the pilot who was receiving a checkout were injured. The training flight was performed under 14 CFR Part 91. Visual meteorological conditions prevailed. The flight originated from Carlsbad about 1300.

According to the flight instructor (CFI), the purpose of the flight was to observe the skill level of the second pilot, and to provide any needed instruction. The CFI assigned the second pilot the task of performing an autorotation to a landing on an airport helipad. During the approach the second pilot, who was handling the flight controls, was a "little short" of the desired touchdown mark. Main rotor rpm decreased, and upon touchdown a rotor blade chopped off the tail boom. The helicopter remained in an upright attitude.

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	51, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane; Helicopter	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine; Helicopter; Instrument airplane; Instrument helicopter	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	August 30, 2000
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	14000 hours (Total, all aircraft), 1500 hours (Total, this make and model), 12000 hours (Pilot In Command, all aircraft), 250 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Hughes	<b>Registration:</b>	N1097N
<b>Model/Series:</b>	269C 269C	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	600934
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	October 13, 2000 Annual	<b>Certified Max Gross Wt.:</b>	2050 lbs
<b>Time Since Last Inspection:</b>	66 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	9582 Hrs	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	O-360H1A
<b>Registered Owner:</b>	FLIGHT TRAILS HELICOPTERS	<b>Rated Power:</b>	190 Horsepower
<b>Operator:</b>	CIVIC HELICOPTER	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	DCQA

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	CRQ ,328 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	12:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	350°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	75°C / 52°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	(CRQ )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	13:00 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	MCCLELLAN-PALOMAR CRQ	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	328 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Simulated forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	33.129962,-117.299133(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Pollack, Wayne
<b>Additional Participating Persons:</b>	STEVE DREW; SAN DIEGO , CA
<b>Original Publish Date:</b>	January 2, 2002
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB traveled to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=50745">https://data.ntsb.gov/Docket?ProjectID=50745</a>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).